CLAIMS

1. A white electroluminescent device comprising in sequence:

an anode,

a blue emitting layer containing a host material and a blue dopant,

a yellow-to-red emitting layer containing a host material identical to the host material of the blue emitting layer and a yellow-to-red dopant, and

a cathode,

the blue emitting layer and the yellow-to-red emitting layer forming an emitting layer.

2. A white electroluminescent device according to claim 1, wherein the blue emitting layer comprises an oxidizer.

3. A white electroluminescent device according to claim 1, further comprising a first organic layer between the anode and the blue emitting layer, the first organic layer comprising an oxidizer.

4. A white electroluminescent device according to claim 1, wherein the yellow-to-red emitting layer comprises a reducer.

5. A white electroluminescent device according to claim 1, further comprising a second organic layer between the cathode and the yellow-to-red emitting layer and the second organic layer comprises a reducer.

6. A white electroluminescent device according to claim 1, further comprising an inorganic compound layer contacting the anode and/or the cathode.

7. A white electroluminescent device according to claim 1, wherein the host material is a styryl derivative, an anthracene derivative or an aromatic amine.

8. A white electroluminescent device according to claim 7, wherein the styryl derivative is a di-styryl derivative, a tris-styryl derivative, a tetra-styryl derivative or a styryl amine derivative.

9. A white electroluminescent device according to claim 7, wherein the anthracene derivative is a compound containing a phenyl anthracene skeleton.

10. A white electroluminescent device according to claim 7, wherein the aromatic amine is a compound containing 2, 3 or 4 nitrogen atoms substituted with an aromatic group.

11. A white electroluminescent device according to claim 10, wherein the aromatic amine further contains at least one alkenyl group.

12. A white electroluminescent device according to claim 1, wherein the blue dopant is at least one compound selected from styryl amines, amine substituted styryl compounds and fused-aromatic-ring containing compounds.

13. A white electroluminescent device according to claim 1, wherein the yellow-to-red dopant is a compound containing a plurality of fluoranthene skeletons.

14. A white electroluminescent device according to claim 1, wherein the yellow-to-red dopant is a compound containing an electron-donating group and a fluoranthene skeleton.

15. A white electroluminescent device according to claim 1, wherein a fluorescence peak wavelength of the yellow-to-red dopant is 540 nm to 700 nm.

16. A white electroluminescent device according to claim 1, wherein the thickness of the blue emitting layer or the yellow-to-red emitting layer is 5 nm and more.